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|   |             |                      |                         |                  |
|---|-------------|----------------------|-------------------------|------------------|
| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
| 10/773,629  | 02/05/2004  | Ranganathan Krishnan | 040250                  | 8348             |
| 23696 7590 03/27/2008<br>QUALCOMM INCORPORATED<br>5775 MOREHOUSE DR.<br>SAN DIEGO, CA 92121 |             |                      | EXAMINER<br>LEE, JOHN J |                  |
|   |             |                      | ART UNIT                | PAPER NUMBER     |
|   |             |                      | 2618                    |                  |
|   |             |                      | NOTIFICATION DATE       | DELIVERY MODE    |
|   |             |                      | 03/27/2008              | ELECTRONIC       |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com  
kscanla@qualcomm.com  
nanm@qualcomm.com

## Office Action Summary

**Application No.**

10/773,629

**Applicant(s)**

KRISHNAN ET AL.

**Examiner**

JOHN J. LEE

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-20 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-6 and 8-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, the limitation "a wide-band interference" lines 6, pages 2 should be changed to "the or said wide-band interference", the limitation "a threshold" lines 6, pages 2 should be changed to "the or said threshold", and the limitation "closed-loop power control" lines 7, pages 2 should be changed to "the or said closed-loop power control". There is insufficient antecedent basis for this limitation in the claim.

Re claim 8, the limitation "closed-loop power control" lines 10, pages 3 should be changed to "the or said closed-loop power control". There is insufficient antecedent basis for this limitation in the claim.

Re claim 12, the limitation "wide-band interference" lines 3, pages 4 should be changed to "the or said wide-band interference". There is insufficient antecedent basis for this limitation in the claim.

Re claim 16, the limitation "closed-loop power control" lines 29, pages 4 should be changed to "the or said closed-loop power control", the limitation "the threshold" lines

31, pages 4 should be changed to “a threshold”, the limitation “closed-loop power control” line 1, pages 5 should be changed to “the or said closed-loop power control”.

There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 20 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. (US 2002/0196766) in view of Hunzinger (US 2006/0046767).

Regarding **claim 20**, Hwang teaches that a method of power control (Fig. 6). Hwang discloses that detecting an interferer (detecting an interference noise of Node B from the specific channel signal that detecting wide-band system signal or narrow-band signal) (Fig. 4, 6 and pages 4, paragraphs 34 - 35). Hwang teaches that enabling close-loop power if a wide-band interferer is determined (Fig. 4, 6 and page 1, paragraphs 9 - 10, where teaches In the wide-band communication system, since the closed-loop power control method is used only for the downlink transmission, the TPC command is transmitted through only the uplink, receiving signal and measuring an interference level (wide-band interference level), and if less or higher than a predefined threshold, do closed loop power control). Hwang teaches that disabling closed-loop control and

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filtering when a narrow-band interferer is determined (pages 3, paragraphs 24 – 26 and Fig. 2, 3, where teaches in narrow band system, the closed loop power control may be not exist (not inefficient) in properly setting the uplink/downlink transmission power by measuring interference (narrow band)).

Hwang does not specifically disclose the limitation “determining whether is a narrow-band or a wide-band interferer”. However, Hunzinger teaches the limitation “determining whether is a narrow-band or a wide-band interferer” (pages 2, lines paragraphs 15 and Fig. 1, 2, where teaches in CDMA system, signals can be received in the presence of high levels of narrow-band or wide-band interference and determining interference level for narrow-band or wide-band). It would have been obvious to one having ordinary skill in the art at the time the invention was to modify the Hwang as taught by Hunzinger, provide the motivation to enhance controlling and detecting power with wide or narrow band interference for dynamically controlling power in wireless CDMA system.

Regarding **claim 22**, Hwang teaches that disabling closed-loop power control and enabling open-loop power control, if an interferer is not detected (page 1, paragraphs 9 – 10 and Fig. 6).

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*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Danial et al. (US 5,697,073) discloses Apparatus and Method for Shaping and Power Controlling a Signal in a Transmitter.

Qian et al. (US 2003/0166407) discloses Closed Loop Power in Wireless System.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
Or P.O. Box 1450  
Alexandria VA 22313

or faxed (571) 273-8300, (for formal communications intended for entry)

Or: (703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to USPTO Headquarters, Alexandria, VA.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay Maung**, can be reached on **(571) 272-7882**. Any inquiry of a general nature or relating to

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the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

J.L

March 17, 2008

John J Lee  
/JOHN J LEE/  
Examiner, Art Unit 2618

A handwritten signature in black ink, appearing to read "John J. Lee", written over a horizontal line.